

AMENDMENTS TO THE SPECIFICATION

Please add the following paragraph before the first paragraph on page 1:

CROSS REFERENCE TO RELATED APPLICATIONS

This application is National Stage Entry of PCT/JP05/06573 filed March 29, 2005.

Further, this application claims the benefit of Japanese Patent Application No. 2004-100657 filed on March 30, 2004, in the Japanese Patent Office.

Please delete the present Abstract and replace it with the following amended Abstract:

While a plastic optical fiber (POF) strand (11) is guided by guide pulleys (21-28) toward a winding machine (17), an internal defect in the POF strand (11) is detected by a defect detection apparatus (20). The defect detection apparatus (20) ~~comprises~~ includes at least ~~one~~ three light illumination devices (31-33) ~~device~~, at least one imaging device ~~line sensor cameras~~ (35-37) and at least one defect detection unit ~~processing units~~ (41-43). The light illumination devices (31-33) ~~device~~ illuminates the POF strand (11), and the imaging device ~~the line sensor cameras~~ (35-37) ~~take~~ takes an image of the POF strand (11) and outputs signals ~~send the image data to the processing units (41-43) to the detection unit~~. The processing units (41-43) set a detection range, and specify the defect pixels in the obtained image based on the intensity of the image. Then, a blob process is carried out to combine the adjacent defect pixels, and determine the existence of the internal defect and specify the defect type based on the size of the combined defect area.